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Suppliers' Information Note

For The BT Network

BT FEATURELINE®

Service Description

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1 Introduction

This Suppliers Information Note (SIN) gives information about the BT Featureline Service.

Featureline is a service provided from BT's public exchanges that offers customers facilities similar to those of a small Private Branch Exchange (PBX), but without the need for the customer to have switching hardware on their premises.

2 Abbreviations

Table 1 contains a list of abbreviations used in this SIN.

CLI	Calling Line Identification
DEL	A PSTN Direct Exchange Line
DID	Direct Inward Dialling
MF	Multi Frequency
MTU	BT Multi-line Terminating Unit
NTP	Network Terminating Point
NTTA	Network Terminating and Test Apparatus
PBX	Private Branch Exchange
PSTN	Public Switched Telephone Network
SIN	Suppliers' Information Note (BT Publication)
TE	Terminal Equipment.
UXD5	Unit eXchange Digital No. 5

Table 1. Abbreviations

3 Service Availability

The service was available to customers served on access lines by System X and AXE 10 Digital Local Exchanges. At the time of writing it is not available to customers served by UXD5 exchanges. This service , as of the 5th September 2023, was no longer available for new supply.

4 Access to Featureline

4.1 Access Lines.

Access to the Featureline service is via either a single line analogue interface, multi-line analogue interface.

The Featureline single line analogue interface is electrically equivalent to the Public Switched Telephone Network (PSTN) single line analogue interface, commonly known as a PSTN Direct Exchange Line (DEL), as described by SIN 351 [1].

The Featureline multi-line analogue interface (Featureline for Phone Systems) is electrically equivalent to the PSTN multi-line analogue interface, commonly known as a PSTN Private Branch Exchange (PBX) Line, as described by SIN 352 [2], and using either the loop calling-unguarded clearing, the loop calling-guarded clearing, the loop calling-disconnect clearing or the earth calling signalling system.

Note 1. The earth calling signalling method is supported on System X but not on AXE10.

Note 2. If required, a site can be supplied with a single presentation of the Featureline multi-line analogue interface.

4.2 Connection Arrangements

The Featureline interface at the Network Terminating Point (NTP) consists of two conductors designated as the ‘A’ and ‘B’ wires. The presentation of these conductors can be at a BT Master socket, a BT Multi-line Terminating Unit (MTU) or customer supplied Network Terminating and Test Apparatus (NTTA).

4.2.1 BT Master Sockets

Plugs which meet the requirements of BS6312:Part 1 [3] and are wired according to Table 2 will be compatible with the BT Master socket. Only the Featureline single line analogue interface is presented at a BT Master socket.

1	Not Used
2	‘A’ wire or ‘B’ wire
3	Local earth when required
4	Shunt connection, when required
5	‘B’ wire or ‘A’ wire
6	Not Used

Note: Plug pin 6 is adjacent to the latch

Table 2. Plug Contacts

Connections for internal extension wiring to IDC within the BT Master socket are shown in the following table.

1	Not Used for PSTN
2	‘A’ wire or ‘B’ wire
3	Shunt connection (Bell wire)
4	Local Earth when required
5	‘B’ wire or ‘A’ wire
6	Not Used for PSTN

Table 3: NTE IDC Connections for Extension Wiring

Note 1: The different types of NTE currently deployed within the BT network present from 3 to 6 IDCs for the termination of extension wiring, however, the essential connections, IDC '2', '3' & '5', will always be present and the numbering kept consistent.

Note 2: There is no straight numerical relationship between IDC and Master Socket contacts (see Section 2.1.), for example the 'shunt connection' is presented on IDC '3' and at NTE Socket contact '4'.

4.2.2 Multi-line Terminating Unit

The BT Multi-line Terminating Unit contains Insulation Displacement Connectors (IDCs) to terminate customer's cabling. The IDCs will support the connection of solid copper conductors between 0.4 mm and 0.6 mm diameter.

4.2.3 Customer supplied NTTA

BT will present unterminated solid copper conductors of between 0.4 mm and 0.6 mm diameter to be terminated on a customer supplied NTTA. Only the Featureline multi-line analogue interface is connected by this method.

Note. An example of customer supplied NTTA is the Test Jack Frame of a PBX.

5 Service Outline

5.1 General

Featureline is a service that provides a closed user group with facilities similar to those received at the extensions of a small PBX. Thus, there is no usage-based tariff for calls to other extensions in the same closed user group. These calls are set up by dialling a 2 digit number. Calls to the PSTN are dialled by inserting the digit 9 before the PSTN number and are charged at the usage based public tariff. Other facilities, such as Call Diversion, Call Pick-up and Call Waiting, are invoked by the use of multi-frequency (MF) *, # and digit code sequences and the Recall signal. There are minor differences in the service provided from the System X and AXE 10 exchanges. These are shown in Appendix A. A list of facility activation codes is given in Appendices B and C.

Featureline does not provide specific support for an operator's console, however, terminals with suitable features can be configured to provide a centralised answering function.

5.2 Numbering

To receive incoming calls from the PSTN, Featureline lines can have individual numbers in the public numbering range or a number of lines can be linked in a hunt group. Hunt groups can either have sequential or cyclic hunting. A line included in a hunt group will also have an individual number in the public numbering range.

5.3 Featureline Local Link

Featureline Local Link extends the Featureline service across more than one site, allowing internal dialling (with no usage based tariff) and feature interworking between up to five locations, where all locations are within the same BT local exchange area.

5.4 Customer Line Identification

5.4.1 Calls terminated on Featureline terminals

Calling Line Identification (CLI) signalling compliant with SIN 227 [4] is available with the Featureline service. It enables suitable Caller Display terminals to display the external telephone number or Featureline extension number of the person calling. When the call is from an external caller the number presented to the terminal has an additional digit "9" inserted before the directory number.

5.4.2 Calls originated by Featureline terminals

For outgoing calls to the PSTN, Featureline has a service option to either release CLI information by default, but to withhold it on a per call basis, or to withhold CLI information by default but to release it on a per call basis. Activation codes for CLI per call release or withhold are listed in Appendices B and C.

When CLI information is released for single lines this information is the directory number of the originating line. For lines in hunt groups the CLI information released depends upon the serving exchange type. System X releases the directory number of the hunt group whilst AXE 10 releases the directory number of the originating line.

6 Terminal Equipment Compatibility

To access the full range of facilities terminal equipment (TE) must be capable of generating a timed break register recall signal and multi-frequency (MF) tone signals for digits 0 to 9 and symbols * and #.

In addition to the standard PSTN ringing cadence, Featureline uses Distinctive Ringing cadences. Distinctive Ringing Type 1 is used for internal calls, Type 2 for ring back facilities and Type 3 for calls diverted from internal extensions. (See SIN 351 [1] for details of Distinctive Ringing cadences). TEs need to be compatible with these ringing cadences to access the full range of FeatureLine facilities. (Examples of incompatible equipment are certain PBXs that cannot reproduce Distinctive Ringing at their extension terminals).

7 Tariffs

Tariffs for the Featureline service are published in the BT Price List.

8 Further information

Further information about the Featureline service can be obtained from the Featureline Customer Web Chat at www.bt.com/business/featurelinechat

Alternatively, please contact either:

- Your companies BT Account Manager,
- For Business customers, BT Sales 0800 400 400 for product and service information, sales and rental enquiries, or
- If you have questions relating to this document then please contact: sinet.helpdesk@bt.com

9 References

[1]	SIN 351	Technical Characteristics Of The Single Analogue Line Interface	
[2]	SIN 352	Technical Characteristics Of The Multi-Line Analogue Line Interface	
[3]	BS 6312	Connectors for analogue telecommunication interfaces. Part 1. Specification for plugs	1994
[4]	SIN 227	CDS Calling Line Identification Service - Service Description	

10 History

Issue 1	March 1998	First Issue
Issue 2	July 1999	Hunt Group Diversion, Customer Controlled Call Barring, Hunt Group Call Queuing and Remote Diversion added for AXE 10. Editorial changes
Issue 3	May 2000	Business Highway added, earth calling added and general review changes
Issue 3.1	May 2001	Editorial Changes
Issue 4.0	September 2002	Editorial Changes Addition of 1471 Erasure. Addition of Master Socket internal extension connections. Reference for Distictive Ringing changed from SIN 249 to SIN 351
Issue 4.1	November 2003	Editorial Changes Terminal Equipment approval clause removed, information available via www.sinet.bt.com Useful Contacts page.
Issue 4.2	May 2010	Editorial Changes BT Highway removed Diversion Override added for AXE10. Bypass Numbers withdrawn.
Issue 4.3	October 2014	Change to customer contact details for further information in Section 8. Change SINet site references from http://www.sinet.bt.com to http://www.btplc.com/sinet/
Issue 4.4	July 2020	Change SINet site references from http://www.btplc.com/sinet/ to https://www.bt.com/about/sinet
Issue 4.5	April 2024	Update to Product availability

APPENDIX A. FEATURELINE PRODUCT OVERVIEW

BASE PACKAGE	SYSTEM X		AXE 10	
	INDIVIDUAL LINE	HUNT GROUP LINE	INDIVIDUAL LINE	HUNT GROUP LINE
Call Diversion	Yes	No (Note 1)	Yes	Yes
Call Diversion Override	Yes	Yes (Note 2)	Yes (Note 3)	Yes (Note3)
Call Offer	Yes	Yes	Yes	Yes
Call Pick-up	Yes	Yes	Yes	Yes
Call Pick-up Directed	Yes	Yes	Yes	Yes
Call Transfer	Yes	Yes	Yes	Yes
Call Waiting	Yes	No	Yes	Yes
Charge Advice	Yes	Yes	No	No
CLI Released & Per Call Withheld	Yes	Yes	Yes	Yes
Code Calling	Yes	Yes	Yes	Yes
General Interrogation	Yes	Yes	No	No
Reminder Call	Yes	Yes	No	No
Repeat Last Call	Yes	Yes	Yes	Yes
Ring Back When Free	Yes	No	Yes	Yes
Ring Back When Next Used	Yes	No	Yes	Yes
Three Way Calling	Yes	Yes	Yes	Yes
1471 Erasure	Yes	Yes (Note 4)	Yes	Yes

Note 1	For Hunt Group lines use Hunt Group Diversion (diverts main H/Group number).
Note 2	Available on Hunt Group line when individual line has diverted to you.
Note 3	Diversion Bypass requests accepted (as System X) and also possible to request Diversion Override.
Note 4	1471 Erasure service does not always work on System X hunt group numbers

SERVICE OPTIONS	SYSTEM X		AXE 10	
	INDIVIDUAL LINE	HUNT GROUP LINE	INDIVIDUAL LINE	HUNT GROUP LINE
Bypass Numbers	No (Note 1)	No (Note 1)	No	No
Call Barring - BT Controlled	Yes	Yes	Yes	Yes
Call Barring - Customer Controlled	Yes	Yes	Yes	Yes
Caller Display	Yes	Yes	Yes	Yes
CLI Withheld & Per Call Release	Yes	Yes	Yes	Yes
Customer Originated Trace	Yes	Yes	Yes	Yes
Direct Call	Yes	Yes	Yes	Yes
Hunt Group Sequential Hunting	No	Yes	No	Yes
Hunt Group Cyclical Hunting	No	Yes	No	Yes
Hunt Group DID Numbers	No	Yes	No	Yes
Hunt Group Diversion	No	Yes	No	Yes
Hunt Group Do Not Disturb	No	Yes	No	Yes
Hunt Group Interrogation	No	Yes	No	No
Hunt Group Call Queuing	No	Yes	No	Yes
Local Link	Yes	Yes (Note 3)	Yes	Yes (Note 3)
Remote Diversion	Yes	Yes (Note 2)	Yes	Yes (Note 2)
Telemarketing Services	Yes	Yes	Yes	Yes

Note 1	Bypass Numbers withdrawn from Featureline service.
Note 2	Diverts the main Hunt Group number.
Note 3	A Hunt Group cannot be split between sites.

APPENDIX B. FEATURELINE FEATURE ACCESS CODES - SYSTEM X EXCHANGES

Feature	Activation codes			notes
	on	check	off	
Call barring - customer controlled	*34[o]#	*#34#	#34[o]*[PIN]#	o = Option number in range of 1 to 5
Call diversions - - all calls - on busy - on no reply - on busy & no reply	 *21*[number]# *67*[number]# *61*[number]# *66*[number]#	 *#21# *#67# *#61# *#66#	 #21# #67# #61# #66#	number = Telephone/extension number
Caller return	1471			
Calling line identity - - per call release (external call) - per call withhold (external call)	 1470 9 [number] 141 9 [number]			number = telephone number being called
Call offer (to busy extension) - accept call (hold original) - accept call (release original) - reject call	R*95# R2 R1 R0			Internal use only Original call on hold Original call released R = Recall

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Featureline Feature Access Codes - System X Exchanges (Continued)

Feature	Activation codes			notes
	on	**check**	**off**	
Call pick-up from free line				
- any call	*52#			
- directed	*52*[ext]#			ext = extension number
Call pick-up from busy line				
- any call	R*52#			R = Recall
- directed	R*52*[ext]#			
Call transfer				For blind transfer - replace handset on receipt of ring tone.
- internal	R[extension]			
- external	R 9 [number]			R = Recall
Call transfer - enquiry call				Starts as Call transfer.
- to switch between calls	R2			R = Recall
- end enquiry - return to original	R1			
Call transfer - announce call				Starts as Call transfer.
- abort transfer	R1			Ends transfer call and return to caller
- no reply	R			R = Recall
Call transfer - to busy				Starts as Call transfer.
- return to caller	R			R = Recall
- transfer to busy	R*24#			

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Featureline Feature Access Codes - System X Exchanges (continued)

Feature	Activation codes			notes
	on	**check**	**off**	
Call waiting - activate - accept call (hold original) - accept call (end original) - reject waiting call	 *43# R2 R1 R0	 *#43#	 #43#	 R = Recall
Charge advice - booking - before call - during call - for all calls	 *40*9[number] *40# *411#	 *#411#	 #411#	
Code calling - to store - to dial (stored number)	 *51*[nn]*[number] #**[nn]	 *#51*[nn]#	 #51*[nn]#	nn is number in range 10 to 29
Customer originated trace - during call - after call completed	 R1477 1477			 R = Recall
Direct call	“lift handset” and wait 4 seconds			
General interrogation		*#001#		

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Featureline Feature Access Codes - System X Exchanges (continued)

Feature	Activation codes			notes
	on	**check**	**off**	
Hunt group diversion - all incoming calls - on busy - on no reply - on busy & no reply	 *121*[number]# *167*[number]# *161*[number]# *166*[number]#	 *#121# *#167# *#161# *#166#	 #121# #167# #161# #166#	
Hunt group do not disturb	*261#	*#261#	#261#	
Hunt group interrogation		*#003#		
Reminder call	*55*[hhmm]#	*#55#	#55#	hhmm = 24 hour clock time
Remote diversion - all incoming calls - on busy - on no reply	 *44*PIN*[tn]*[tn2]# *65*PIN*[tn]*[tn2]# *64*PIN*[tn]*[tn2]#	 *#44*PIN*[tn]# *#65*PIN*[tn]# *#64*PIN*[tn]#	 #44*PIN*[tn]# #65*PIN*[tn]# #64*PIN*[tn]#	
Ring back when free	R*37#	*#37#	#37#	R = Recall
Ring back when next used				see Ring back when free
Three way call	R[number]			R = Recall
1471 Erasure	1475	1471		

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APPENDIX C. FEATURELINE FEATURE ACCESS CODES - AXE 10 EXCHANGES

Feature	Activation codes			notes
	on	check	off	
Call barring	*34*[o]#	*#34#	#34*[o]*[PIN]#	o = Option number in range of 1 to 5
Call diversions -				
- all calls	*21*[number]#	*#21#	#21#	number = Telephone/extension number
- on busy	*67*[number]#	*#67#	#67#	
- on no reply	*61*[number]#	*#61#	#61#	
Caller return	1471			Planned to introduce this January - March 1998
Calling line identity -				
- per call release				
(external call)	147#9 [number]			number = telephone number being called
- per call withhold				
(external call)	141 9 [number]			
Call offer (to busy extension)	R*95#			Internal use only
- accept call (hold original)	R2			Original call on hold
- accept call (release original)	R1			Original call released
- reject call	R0			R = Recall

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Featureline Feature Access Codes - AXE 10 Exchanges (continued)

Feature	Activation codes			notes
	on	**check**	**off**	
Call pick-up from free line				
- any call	*52#			
- directed	*58*[ext]#			ext = extension number
Call pick-up from busy line				
- any call	R*52#			R = Recall
- directed	R*58*[ext]#			
Call transfer				For blind transfer - replace handset on receipt of ring tone.
- internal	R[extension]			
- external	R 9 [number]			R = Recall
Call transfer - enquiry call				Starts as Call transfer.
- to switch between calls	R2			R = Recall
- end enquiry - return to original	R1			
Call transfer - announce call				Starts as Call transfer.
- abort transfer	R1			Ends transfer call and return to caller
- no reply	R			R = Recall

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Featureline Feature Access Codes - AXE 10 Exchanges (continued)

Feature	Activation codes			notes
	on	**check**	**off**	
Call transfer - to busy - return to caller - transfer to busy	 R1 R[ext]			Starts as Call transfer. R = Recall
Call waiting - activate - accept call (hold original) - accept call (end original) - reject waiting call	 *43# R2 R1 R0	 *#43#	 #43#	 R = Recall
Code calling - to store - to dial (stored number)	 *51*[n]*[number]# **[n]	 *#51#	 **[n]	n is code in range 0 to 9
Customer originated trace - during call	 R*268#			 R = Recall
Direct call	“lift handset” and wait 4 seconds			

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Featureline Feature Access Codes - AXE 10 Exchanges (continued)

Feature	Activation codes			notes
	on	**check**	**off**	
Hunt group diversion				
- all incoming calls	*121*[number]#	*#121#	#121#	
- on busy & no reply	*166*[number]#	*#166#	#166#	
Hunt group do not disturb	*261#	*#261#	#261#	
Remote diversion				
- all incoming calls	[tn]*PIN#*21*[tn2]#	[tn]*PIN#*#21*#	[tn]*PIN##21*#	
- on busy	[tn]*PIN#*67*[tn2]#	[tn]*PIN#*#67*#	[tn]*PIN##67*#	
- on no reply	[tn]*PIN#*61*[tn2]#	[tn]*PIN#*#61*#	[tn]*PIN##61*#	
Repeat last call	***			
Ring back when free	R*37#	*#37#	#37#	R = Recall
Ring back when next used				see Ring back when free
Three way call	R[number]			R = Recall
1471 Erasure	1475	1471		

-END-

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